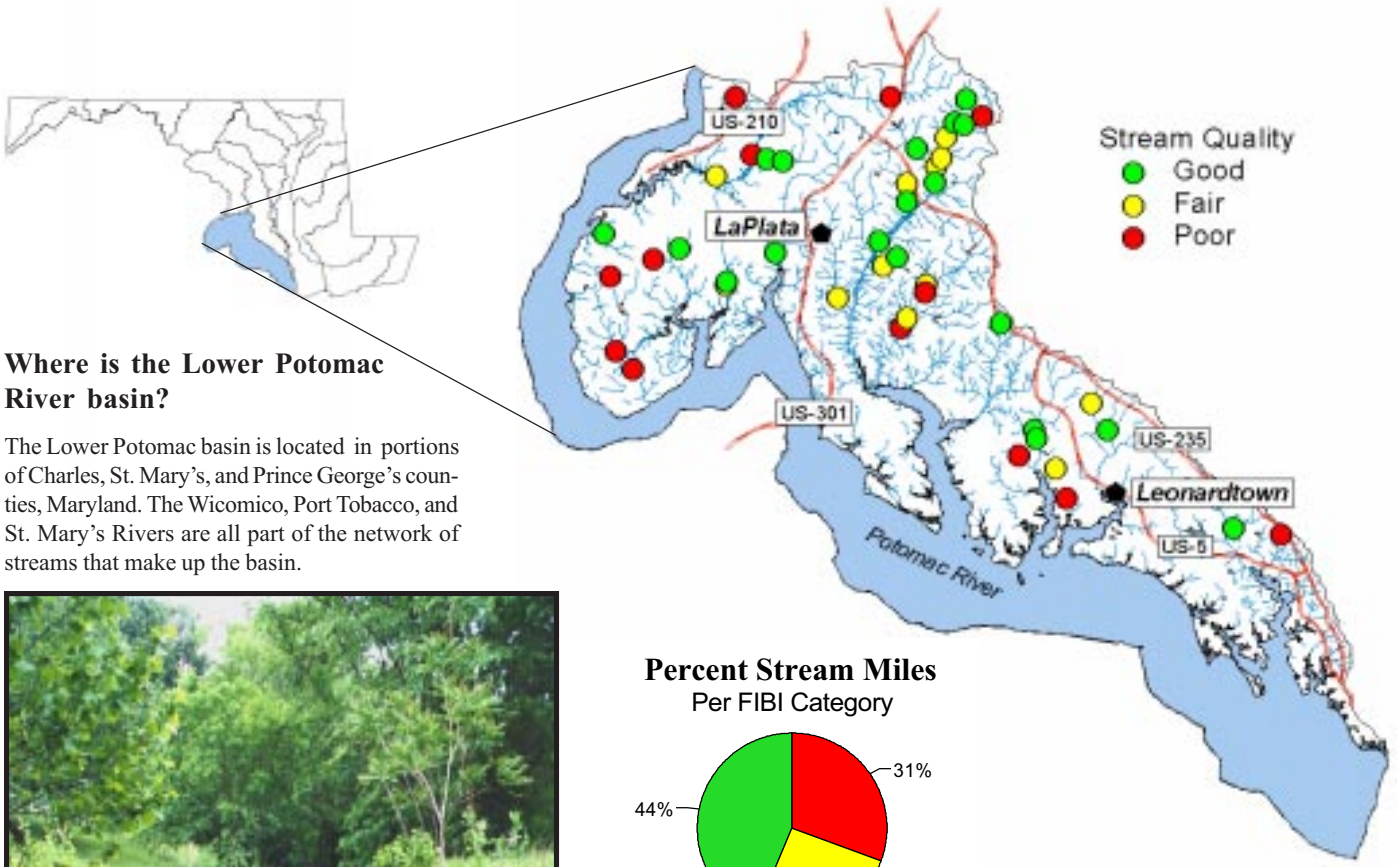
Lower Potomac River Basin

Current Status of Wadeable Streams

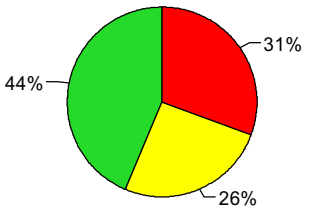


Where is the Lower Potomac River basin?

The Lower Potomac basin is located in portions of Charles, St. Mary's, and Prince George's counties, Maryland. The Wicomico, Port Tobacco, and St. Mary's Rivers are all part of the network of streams that make up the basin.

Water has played a critical role in the history of the basin. As people depended on the water ways for food, water, and trading routes, settlements spread along streams and rivers.

Percent Stream Miles
Per FIBI Category



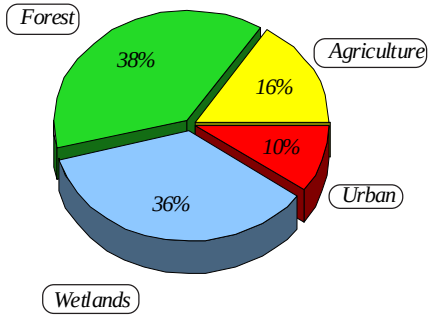
The Fish Index of Biotic Integrity is a measure of stream quality based on fish communities.

What Lives in Our Streams? *

Estimated Fish Abundance:	3.4 million
Number of Fish Species:	41
Number of Gamefish Species:	2
Number of Reptile and Amphibian Species:	24
Number of Freshwater Mussel Species:	2

*Based on Maryland Biological Stream Survey collections in wadeable streams basin-wide in 1995.

Land Use in the Basin



Land uses in the Lower Potomac River basin are primarily forest and wetland. The basin covers an area of 1,127 square miles and ranks 11th out of Maryland's 18 major river basins in population per square mile (154,500 people or 85 persons per square mile).

Water Quality

Oxygen - 29% of the streams had oxygen levels below the state water quality standards of 5 mg/L.

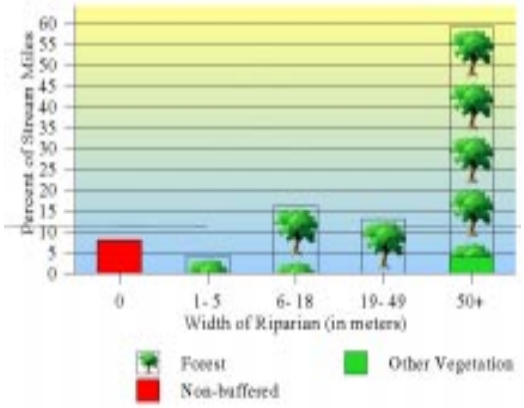
Nitrate - 12% of the streams had nitrate levels that may affect aquatic life (>1 mg/L). The main sources of nitrates are farm fertilizers and acid rain.

Buffering Capacity - 21% of the streams in the basin were poorly buffered against acid rain.

Good Fair Poor

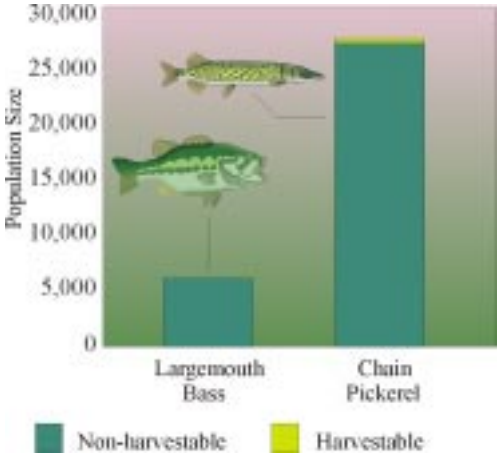
Riparian Zone

Trees, shrubs, and grasses that border a stream are called the stream's *riparian buffer.* This buffer zone can protect a stream against runoff, provides shade, stabilizes stream banks, and supplies food and shelter for aquatic life. A wide and intact buffer offers more protection than a narrow one. The riparian buffers in the Lower Potomac basin are in generally good condition. We can help maintain these buffers by protecting streamside forests and planting trees in disturbed areas.



Gamefish

Two gamefish were found in the Lower Potomac basin's wadeable streams. While the basin supports a large population of these gamefish, few of the individuals caught were of harvestable size. The wadeable tributary streams of the basin appear to serve as a nursery for gamefish.



DID YOU KNOW???

- The Potomac River got its name from its early settlers, the *Pawtowmeck* Indians, members of the Algonquin nation.
- In 1608, John Smith was among the first Europeans to explore the Lower Potomac River.
- About 6% of the stream miles in the basin classified by the U.S. Geological Survey as having year round flows were dry during the spring and summer of 1995.
- The basin accounts for only 3% of Maryland's human population.

The ironcolor shiner, rare in Maryland, is found in the Lower Potomac River basin.

Community Involvement

Want to help? These community groups can show you how!

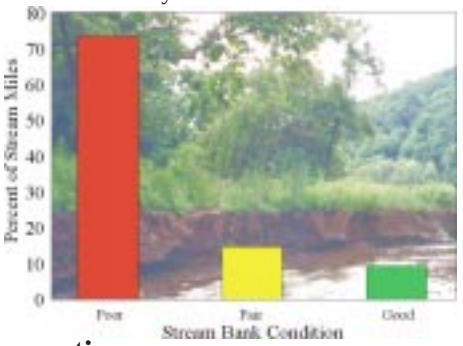
Alliance for the Chesapeake Bay
6600 York Road, Suite 100
Baltimore, MD 21212
Kathleen Millan (410) 3776270

St. Mary's Environmental Umbrella Group
General Delivery
St. Mary's City, MD 20686
Nancy Smith (301) 862-0405

Citizens Monitors of St. Mary's County
General Delivery
St. Mary's City, MD 20686
Nancy Smith (301) 862-0405

Stream Bank Stability

Eroded, unstable banks reduce habitat quality in streams and contribute to water quality problems in downstream areas. The stability of stream banks in the Lower Potomac basin is poor. As lands within the basin were developed for agriculture and later urbanized, many miles of stream banks became highly eroded. Since streams in this basin flow into the Chesapeake Bay, this bank instability causes an increase in downstream transport of nutrients and suspended sediments in the Bay.



Recreation

Purse State Park, Chapel Point State Park, Gilbert Run Park, and Saint Mary's River State Park provide recreational areas in the basin for residents and visitors. Activities include: hiking, fishing, trapping, hunting picnicking, canoeing, camping, swimming, boating, and nature observation.

A man canoeing on the St. Mary's River takes a moment to enjoy the view.

For more detailed information on streams in the Bush River basin and elsewhere in Maryland contact Ann Smith of DNR/MANTA at (410) 260-8611 or email *asmith@dnr.state.md.us.*